

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Applicant: Wenzel et al.

Filed: Herewith

For: METHOD AND SYSTEM FOR ION BEAM CONTAINMENT USING
PHOTOELECTRONS IN AN ION BEAM GUIDE

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, pending applications, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120:

Serial No.: _____

Filing Date: _____

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

- (a) Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.
- (b) Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

- (a) Within 3 months of the filing date or date of entry into the National Stage.
- (b) Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 50-1733 for consideration of this Statement.
- (c) Before the mailing date of a first Office Action on the merits after a first or second submission under 37 C.F.R. 1.129(a).

(d) After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.

(1) The required certification is given below, or

(2) Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or

(3) Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 50-1733

(e) After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. Petition hereby is made for consideration of this Statement and the required certification is indicated below.

(1) Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(i)(1), or

(2) Charge the fee set forth in 37 C.F.R. 1.17(i)(1) to Deposit Account No. 50-1733.

4. Certification (if applicable)

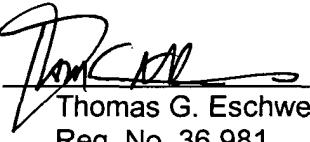
(a) The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

(b) The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

5. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1733.

Respectfully Submitted,

ESCHWEILER & ASSOCIATES, LLC

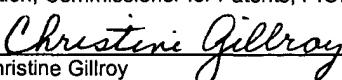
By 
Thomas G. Eschweiler
Reg. No. 36,981

National City Bank Building
629 Euclid Avenue, Suite 1210
Cleveland, Ohio 44114
(216) 502-0600

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this paper, and the documents referred to as attached or enclosed, are being deposited with the United States Postal Service on the date set forth below in an envelope as "Express Mail Post Office to Addressee" service under 37 CFR 1.10, with the below indicated mailing label number, addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: July 31, 2003


Christine Gillroy

Mailing Label Number: EV317554850US

Please type a plus sign (+) inside this box



Approved for use through 10/31/2002. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete If Known	
Sheet 1		of 2		Attorney Docket No. 02-IMP-076	
		Application Number		Filing Date	
		First Named Inventor		Wenzel et al.	
		Group Art Unit		Examiner Name	
		 		 	

U.S. PATENT DOCUMENTS					
Exam. Initials*	Cite No.¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Doc.	Date of Pub. of Cited Doc. (mm-dd-yyyy)
		Number	Kind Code² (if known)		Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
AA	4,383,177			Keller et al.	05/10/1983
AB	4,447,732			Leung et al.	05/08/1984
AC	4,686,365			Meek et al.	08/11/1987
AD	4,780,642			Jacquot	10/25/1988
AE	5,206,516			Keller et al.	04/27/1993
AF	5,350,926			White et al.	09/27/1994
AG	5,433,788			Mochizuki et al.	07/18/1995
AH	5,497,006			Sferlazzo et al.	03/05/1996
AI	5,523,652			Sferlazzo et al.	06/04/1996
AJ	5,554,857			Benveniste	09/10/1996
AK	5,576,538			Sakai et al.	11/19/1996
AL	5,661,308			Benveniste et al.	08/26/1997
AM	5,703,372			Horsky et al.	12/30/1997
AN	5,703,375			Chen et al.	12/30/1997
AO	5,707,452			Dandl	01/13/1998
AP	5,750,987			Ichimura et al.	05/12/1998
AQ	5,760,405			King et al.	06/02/1998
AR	5,811,823			Blake et al.	09/22/1998
AS	5,825,038			Blake et al.	10/20/1998
AT	5,834,786			White et al.	11/10/1998
AU	5,925,886			Seki et al.	07/20/1999
AV	5,975,014			Dandl	11/02/1999
AW	6,016,036			Brailove	01/18/2000
AX	6,060,718			Brailove et al.	05/09/2000
AY	6,100,536			Ito et al.	08/08/2000
AZ	6,130,436			Renau et al.	10/10/2000
AAA	6,135,128			Graf et al.	10/24/2000
AAB	6,207,963	B1		Benveniste	03/27/2001
AAC	6,207,964	B1		McIntyre et al.	03/27/2001
AAD	6,242,750	B1		Takahashi et al.	06/05/2001
AAE	6,294,862	B1		Brailove et al.	09/25/2001
AAF	6,271,529	B1		Farley et al.	08/07/2001
AAG	6,297,594	B1		Sakai et al.	10/02/2001
AAH	6,313,475	B1		Renau et al.	11/06/2001
AAI	2002/0014587	A1		Benveniste et al.	02/07/2002
AAJ	6,359,286	B1		Ito et al.	03/19/2002
AAK	6,414,329	B1		Benveniste et al.	07/02/2002
AAL	6,515,408	B1		England et al.	02/04/2003
AAM	6,541,781	B1		Benveniste et al.	04/01/2003

Examiner Signature		Date Considered
-----------------------	--	--------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

Please type a plus sign (+) inside this box

Approved for use through 10/31/2002. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete If Known	
Sheet	2	of	2	Attorney Docket No.	02-IMP-076

FOREIGN PATENT DOCUMENTS								
Exam. Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Doc.	Date of Pub. of Cited Doc. (mm-dd-yyyy)	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ² (if known)				
	BA	JP	7-340297		Hitachi, K.K.	12/27/1995	Entire Document	Yes
	BB	JP	406036735A		Tasyi tanasguta et al.	02/10/1994	Entire Document	Yes

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS								
Exam. Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						T ²
	CA	<u>"Work Functions of the Elements [eV]", AFTER L. LEY and M. CARDONA, Photoemission in Solids, Springer 1979, 1 pg..</u>						
	CB	<u>"Acceleration and Transport of Neutralized Ion Beams", Charged Particle Beams, A Wiley-Interscience Publication, STANLEY HUMPHRIES, JR., 1990, 7 pgs.</u>						
	CC	<u>"Space-Charge Neutralization and Studies of the Beam Plasma", BERNARD PETERS, A. C. HELMHOLZ and W. E. PARKINS, Definition and Description of the Beam-Plasma Region, Book Title Unknown, Date Unknown, 14 pgs.</u>						
	CD	<u>"A Noncontacting Scanning Photoelectron Emission Technique for Bonding Surface Cleanliness Inspection", DR. RAYMOND L. GAUSE, presented to the Fifth Annual NASA NDE Workshop, Cocoa Beach, Florida, Date unknown, 16 pages.</u>						
	CE	<u>"Lowering the Work Function of a Photoemissive Electrode", DIETER W. BLUM, The QTI Group, Applied Electrodynamics, September, 2000, 7 pgs.</u>						
	CF							
	CG							
	CH							
	CI							
	CJ							

Examiner Signature		Date Considered
--------------------	--	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231